



**PATENT**

**THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/675,557

Filing Date: 9/30/03

Applicant: Schneider

Group Art Unit: 1774

Examiner: Dixon

Title: Polymer Composite Structure Reinforced With Shape  
Memory Alloy and Method of Manufacturing Same

Attorney Docket: 7784-000553CPC

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Commissioner for Patents  
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Alexandria, Virginia 22313-1450

**Pre-Appeal Statement Prior to Filing of Appeal Brief**

In the Final Office Action mailed May 2, 2005, Claims 1-29 were finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Xie et al. (U.S. Patent No. 6,503,620) in view of Minners (U.S. Patent No. 6,236,300). The Applicant's position remains that it would not have been obvious to combine the references as the Examiner has done, and further that the references do not even show or suggest all of the limitations of the pending independent claims.

The Examiner responded to the "Remarks" provided in the February 9, 2005 Amendment filed by the undersigned by stating that Minners did, indeed, teach the motivation to combine the teachings of these two references in Col. 7, Lines 3-10 of

Minners. The Examiner referenced “respective product enhancement via such inclusion.”

#### No Motivation to Combine References

The undersigned has carefully reviewed the portion of Minners referenced by the Examiner and remains at a loss to understand how one of ordinary skill in the art would have been motivated to combine the teachings of Minners with the teachings of Xie et al. to produce the claimed invention. Again, the portion in Minners cited by the Examiner relates to Figure 8, and Col. 6, Lines 57-67 and Col. 7, Lines 1-9. The embodiment discussed at this portion of Minners involves an actuator having two sections of SMA material 26a and 26b on opposite sides of an actuating arm 12. It is explained that one or the other of the SMA elements 26a or 26b will cause the arm 12 to be moved either upwardly or downwardly to shorten either pair 20a, 20b of signal contacts or pair 20a', 20b' of signal contacts. There is no discussion or suggestion of using SMA material in particle or fragmentary form in other types of compounds or substances, such as an adhesive material. Furthermore, the actuator of Minners would not appear to be improved or enhanced in any manner by the inclusion of an adhesive. Minners is further not concerned whatsoever with improving the “compression-after-impact” strength of any portion of the actuator. The only thing Minners actually discloses is that SMA film-like layers can be used on a substrate to assist in performing an actuator function. It is most respectfully submitted that one of ordinary skill in the art would glean nothing from Minners that suggests using SMA material in particle form within an adhesive material such as that disclosed in Xie et al.

Xie et al only involves a construction of a “pressure sensitive adhesive” (PSA) useful for making PSA labels. There is no suggestion in Xie et al. of using SMA particles in the adhesive. Furthermore, SMA particles would presumably not be needed in an application involving a label. One of ordinary skill in the art would not be motivated, and would see no desirability (as well as no purpose), for implementing SMA particles into a label. The labels of Xie et al further do not appear to require improved compression-after-impact strength, nor does it appear that the labels in Xie et al would benefit in functionality by improving their compression-after-impact strength. Accordingly, Xie et al does not suggest any desirability or motivation for including SMA particles in its adhesive.

#### Widely Disparate Functions of the Components in the Cited References

It is also requested that the widely disparate functions of the references that have been cited be considered, as compared to the subject matter being claimed in the present application. For example, Claim 1 is directed to “*an adhesive compound*” having “*an adhesive base material*” and “*a plurality of SMA particles*” dispersed within the adhesive base material to improve an impact resistance of the adhesive base material.” Minners, for example, does not appear to deal whatsoever with providing SMA material in particle form, for any purpose. Nor does Minners appear to be involved with integrating SMA material inside of another material to provide improved impact strength. Minners relates to actuators, which is where SMA materials have found particular utility, but nevertheless has nothing to do with adhesives or dealing with problems such as improving impact strength by modifying the structural properties of an adhesive.

Conversely, Xie et al involves the manufacture of pressure sensitive adhesive (PSA) labels. The labels of Xie et al would not appear to be improved in functionality or performance by using SMA particles, in their adhesive layer(s).

In view of the foregoing, it is most respectfully requested that the § 103(a) rejection of the pending claims be withdrawn and the application passed to allowance.

Respectfully submitted,

Dated: October 3, 2005

By:   
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